



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/185,876	11/03/1998	ARNOLD I. KLAYMAN	SRSLABS.217A	1161

20995 7590 03/16/2005

KNOBBE MARTENS OLSON & BEAR LLP  
2040 MAIN STREET  
FOURTEENTH FLOOR  
IRVINE, CA 92614

EXAMINER
----------

OPSASNICK, MICHAEL N

ART UNIT	PAPER NUMBER
----------	--------------

2655

DATE MAILED: 03/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/185,876	<b>Applicant(s)</b> KLAYMAN, ARNOLD I.	
	<b>Examiner</b> Michael N. Opsasnick	<b>Art Unit</b> 2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,7-20,22-25,27-34,36,38-52,55,57-67 and 70-75 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,3,4,9-20,22-25,27-34,36,38-52,55,57-67 and 70-75 is/are allowed.
- 6) ☒ Claim(s) 5 and 7 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Allowable Subject Matter***

1. Claims 1,3,4,9-20,22-25,27-34,36,38-52,55,57-67,70-75 are allowable over the prior art of record.

2. The following is a statement of reasons for the indication of allowable subject matter:

The claim limitations (of the independent claim subset of the claims listed above) pertaining to the specificity of the filtering characteristics applied to the voice signal, is not explicitly taught by the prior art of record.

3. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5,7, are rejected under 35 U.S.C. 103(a) as being unpatentable over Helf et al (5550924) in view of Lin et al (5953697).

As per claim 5, Helf et al (5550924) teaches a voice communication device with possible noise corrupted signals (col. 1 lines 5-13) comprising:

“a sender configured.....communication channel.....voice enhancer” (col. 1 lines 5-25) comprising:

“an aural filter operatively coupled.....said aural filter configured to filter....high frequencies above speech frequencies are attenuated with respect to speech frequencies” as masking frequencies according to psychoacoustic aural curves -- col. 4 lines 31-35;

“a speech expander.....aural filter...an expander signal.....filter output signal” as filtering the signal according to psychoacoustic aural information, and reading the filtered signal to the original signal to obtain a filtered speech signal (col. 3 lines 25-50, col. 4 lines 30-54);

“a combiner configured to combine at least a portion.....to produce an enhance signal” as overlap/adding the filtered signal to the original signal to provide a noise-filtered signal (col. 4 line 40 – col. 5 line 38);

Helf et al (5550924) does not explicitly teach using the envelope gain/amplitude of the filter in the signal processing, however, Lin et al (5953697) teaches this claimed feature (col. 2 lines 43-49). Therefore, it would have been obvious to one of ordinary skill in the art of signal processing to modify the teachings of Helf et al (5550924) with envelope gain because it would be advantageous to smoothen the speech parameters (Lin, col. 2 lines 49-50).

Art Unit: 2655

As per claim 7, Helf et al (5550924) teach a gain controlled amplifier and envelope detector (as notch finding and attenuation -- Fig. 1)

### ***Response to Arguments***

6. Applicant's arguments filed 2/28/2005 have been fully considered but they are not persuasive. As per the arguments on page 14-16 of the response, examiner notes that the bulk of the arguments pertain to claims that have now been determined to be allowable over the prior art of record. Examiner notes that the claim language of claim 5 pertains to a generic approximation of the inverse of loudness curves, which is still readable on the combination of Helf in view of Lin. Furthermore, the motivation to combine the references is shown in Lin, as noted above.

### ***Conclusion***

7. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

(703) 872 9314,

(for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121.  
Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Opsasnick, telephone number (703)305-4089, who is available Tuesday-Thursday, 9am-4pm.


Art Unit: 2655

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Doris To, can be reached at (703)305-4827. The facsimile phone number for this group is (703)872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 2600 receptionist whose telephone number is (703) 305-4750, the 2600 Customer Service telephone number is (703) 306-0377.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mno  
3/12/05



David L. Ometz  
Primary Examiner